

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

## 1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

## b. TYPE OF WELL

OIL  
WELL ☐GAS  
WELL ☒

OTHER

SINGLE  
ZONE ☐MULTIPLE  
ZONE ☐

## 2. NAME OF OPERATOR

Beartooth Oil &amp; Gas Company

## 3. ADDRESS OF OPERATOR

P. O. Box 2564, Billings, MT 59103

## 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*

At surface

1925' FNL, 594' FEL

At proposed prod. zone

same

## 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

25 miles northwest of Mack, Colorado

## 15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if any)

594'

## 16. NO. OF ACRES IN LEASE

600

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

320

## 18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

2318'

## 19. PROPOSED DEPTH

6210'

## 20. ROTARY OR CABLE TOOLS

Rotary

## 21. ELEVATIONS (Show whether DF, RT, GR, etc.)

7074' GL, 7090' KB

## 22. APPROX. DATE WORK WILL START\*

August 1, 1982

## 23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	32.3# H-40 STC	200'	150 sacks Class "G"
8-3/4"	7" New	20# K-55 STC	2150'	150 sacks 50-50 Pozmix
6-1/4"	4 1/4" New	11.6# K-55 LTC	6210'	175 sacks RFC

1. Surface formation is the Mesaverde.
2. Anticipated geologic markers are: Mancos 1620', Castlegate 1950', Frontier 5150', Dakota 5540', Morrison 5760'.
3. Gas is anticipated in the Dakota and Morrison. No oil or other minerals are anticipated. Possible water sands are expected in the Mesaverde.
4. Proposed casing program: See Item No. 23 above.
5. Pressure control equipment: See attached well control plan and schematic of drilling contractor's BOP stack. BOP's will be tested before drilling out from under surface and intermediate casing and checked daily.
6. Air or mist drilling will be used to drill the surface hole unless water is encountered. If water is encountered, chemical-gel type mud will be used. The well will be air drilled from under surface casing to total depth.

(continued back page)

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

James G. Routson

TITLE

Petroleum Engineer

DATE

5/25/82

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING

DATE:

BY:

## Instructions

**General:** This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

**Item 1:** If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

**Item 4:** If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

**Item 14:** Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

**Items 15 and 18:** If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

**Item 22:** Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

☆ U.S. GOVERNMENT PRINTING OFFICE : 1963—O-711-396

7. Auxiliary equipment: See well control plan.

8. The logging program will consist of a DIL log from TD to base of intermediate casing and GR-FDC-SNP or CNL logs from TD to above the Frontier. No cores or DST's are planned.

9. No abnormal pressures or temperatures anticipated. No poisonous gas is anticipated.

10. Anticipated spud date is August 1, 1982, depending upon rig availability. Completion operations should commence within 30 days of rig release.

11. Survey plats are attached.

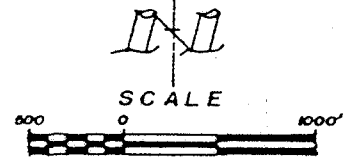
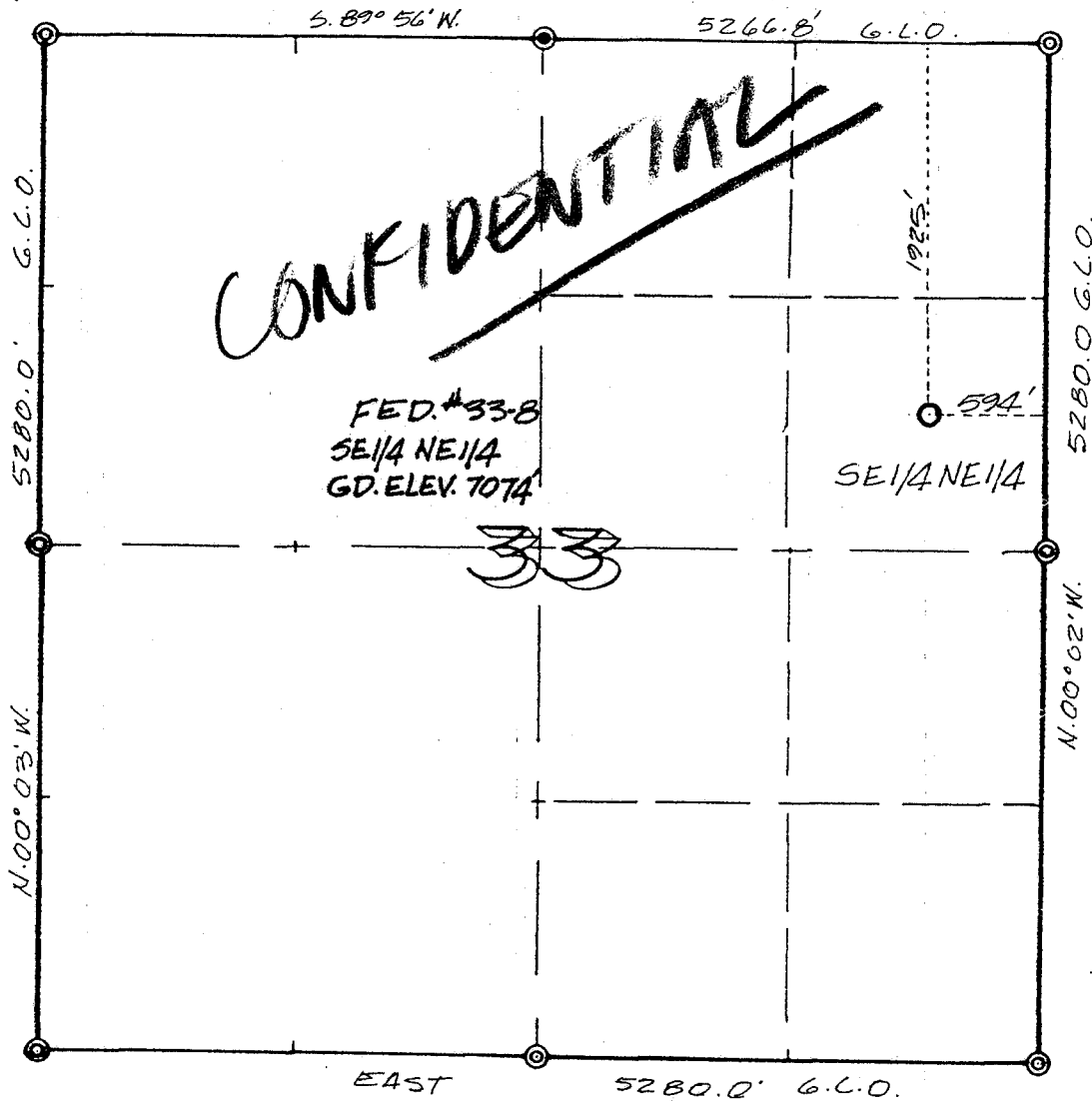
12. Beartooth has a Utah Statewide bond - No. 55-77-50.

OFF GAS' AND MINING  
OF UTAH DIVISION OF  
APPROVED BY THE STATE

*James A. [unclear]*

SEC. 33, T. 16S., R. 25E. OF THE S.L.B.M.

PLAT #1



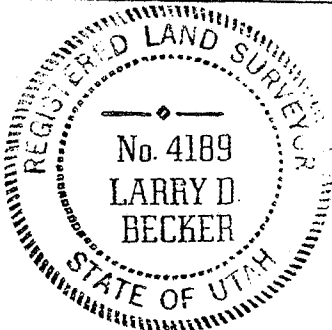
LEGEND

- ⊙ STANDARD LOCATION OF G.L.O. CORNERS.
- ⊙ G.L.O. CORNERS FOUND.
- WELL LOCATION STAKED.

REFERENCE DOCUMENTS

- G.L.O. PLAT
- SAN ARROYO RIDGE, UTAH QUADRANGLE, USGS

THIS WELL LOCATION PLAT WAS PREPARED FOR BEARTOOTH OIL & GAS CO. AS REQUESTED BY KEN CURREY, TO LOCATE THE FEDERAL NO. 33-8, 1925' F.N.L. & 594' F.E.L., IN THE SE 1/4 NE 1/4, OF SECTION 33, T. 16S., R. 25E OF THE S.L.B.M. GRAND COUNTY, UTAH.



SURVEYOR'S CERTIFICATE

I, LARRY D. BECKER A REGISTERED LAND SURVEYOR IN THE STATE OF UTAH DO HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY DIRECT SUPERVISION AND THAT THIS PLAT REPRESENTS SAID SURVEY.

*Larry D. Becker*  
UTAH L.S. NO. 4189

SURVEYED	4-30-82		ENERGY	1156 BOOKCLIFF AVE. NO. 4	SCALE 1" = 1000'
DRAWN	5-1-82		SURVEYS &	GRAND JUNCTION, CO. 81501	JDR NO.
CHECKED	5-2-82		ENGINEERING CORP.	803 245-7221	SHEET OF

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIPlicate  
(Other Instructions on  
Reverse Side)  
OIL & GAS OPERATIONS  
RECEIVED

Form approved.  
Budget Bureau No. 42-R1425.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
DRILL ☒ DEEPEN ☐ PLUG BACK ☐

b. TYPE OF WELL  
OIL WELL ☐ GAS WELL ☒ OTHER ☐

SINGLE ZONE ☐ MULTIPLE ZONE ☐

2. NAME OF OPERATOR  
Beartooth Oil & Gas Company

3. ADDRESS OF OPERATOR  
P. O. Box 2564, Billings, MT 59103

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
At surface 1925' FNL, 594' FEL  
At proposed prod. zone 609'  
same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
25 miles northwest of Mack, Colorado

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if any) 594'

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 2318'

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
7074' GL, 7090' KB

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	32.3# H-40 STC	200'	150 sacks Class "IG"
8-3/4"	7" New	20# K-55 STC	2150'	150 sacks 50-50 Pozmix
6-1/4"	4 1/2" New	11.6# K-55 LTC	6210'	175 sacks RFC

- Surface formation is the Mesaverde.
- Anticipated geologic markers are: Mancos 1620', Castlegate 1950', Frontier 5150', Dakota 5540', Morrison 5760'.
- Gas is anticipated in the Dakota and Morrison. No oil or other minerals are anticipated. Possible water sands are expected in the Mesaverde.
- Proposed casing program: See Item No. 23 above.
- Pressure control equipment: See attached well control plan and schematic of drilling contractor's BOP stack. BOP's will be tested before drilling out from under surface and intermediate casing and checked daily.
- Air or mist drilling will be used to drill the surface hole unless water is encountered. If water is encountered, chemical-gel type mud will be used. The well will be air drilled from under surface casing to total depth.

(continued back page)

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED James G. Routson TITLE Petroleum Engineer DATE 5/25/82

(This space for Federal or State office use)

PERMIT NO. W.P. Matthes APPROVAL DATE E. W. GYNN FOR DISTRICT OIL & GAS SUPERVISOR DATE JUL 08 1982

APPROVED BY W.P. Matthes CONDITIONS OF APPROVAL, IF ANY:

NOTICE OF APPROVAL

CONDITIONS OF APPROVAL ATTACHED  
TO OPERATOR'S COPY

FLARING OR VENTING OF  
GAS IS SUBJECT TO NTL 4-A  
DATED 1/1/80

**General:** This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

**Item 4:** If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plat, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

Items 15 and 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

**Item 22: Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.**

☆ U.S. GOVERNMENT PRINTING OFFICE: 1963-O-711-398

7. Auxiliary equipment: See well control plan;
  8. The logging program will consist of a DIL log GR-FDC-SNP or CNL logs from TD to above the Fracture.
  9. No abnormal pressures or temperatures anticipated.
  10. Anticipated spud date is August 1, 1982, dependent upon weather conditions.
1. Survey plats are attached.
  2. Beartooth has a Utah Statewide bond # No. 55-7-

ing approval of the proposal before operations are started.

0-711-308

PHOTOGRAPH CLOSING AND CLOSING PROGRAM

2074' GL. 2000' NS

11. ELEVATIONS (Show whether GS, BT, GS, etc.)

12. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.

13. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL OR DRILLING OPERATIONS, FT.

14. DISTANCE FROM PROPOSED LOCATION TO NEAREST FORD OR THIS LEASE, FT.

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST TOWN OR POST OFFICE, MILES AND FEET.

16. DISTANCE IN MILES AND FEET FROM NEAREST TOWN OR POST OFFICE.

17. 25 miles northeast of Mack, Colorado

18. 1925' EUL. 454' FEL

19. LOCATION OF WELL (Report location clearly and in accordance with the Department of the Interior, Bureau of Land Management, Manual, Part 1, Section 1.1.1.)

20. ADDRESS OF OPERATOR

21. NAME OF OPERATOR

22. TYPE OF WELL

23. OIL

24. GAS

25. OTHER

26. DEEPEN

27. REPAIRS

28. APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG WELL

29. GEOLOGICAL SURVEY

30. DEPARTMENT OF THE INTERIOR

31. UNITED STATES

32. GEOLOGICAL SURVEY

33. DEPARTMENT OF THE INTERIOR

34. UNITED STATES

35. GEOLOGICAL SURVEY

36. DEPARTMENT OF THE INTERIOR

37. UNITED STATES

38. GEOLOGICAL SURVEY

39. DEPARTMENT OF THE INTERIOR

40. UNITED STATES

41. GEOLOGICAL SURVEY

42. DEPARTMENT OF THE INTERIOR

43. UNITED STATES

44. GEOLOGICAL SURVEY

45. DEPARTMENT OF THE INTERIOR

46. UNITED STATES

47. GEOLOGICAL SURVEY

48. DEPARTMENT OF THE INTERIOR

49. UNITED STATES

50. GEOLOGICAL SURVEY

51. DEPARTMENT OF THE INTERIOR

52. UNITED STATES

53. GEOLOGICAL SURVEY

54. DEPARTMENT OF THE INTERIOR

55. UNITED STATES

56. GEOLOGICAL SURVEY

57. DEPARTMENT OF THE INTERIOR

58. UNITED STATES

59. GEOLOGICAL SURVEY

60. DEPARTMENT OF THE INTERIOR

61. UNITED STATES

62. GEOLOGICAL SURVEY

63. DEPARTMENT OF THE INTERIOR

64. UNITED STATES

65. GEOLOGICAL SURVEY

66. DEPARTMENT OF THE INTERIOR

67. UNITED STATES

68. GEOLOGICAL SURVEY

69. DEPARTMENT OF THE INTERIOR

70. UNITED STATES

71. GEOLOGICAL SURVEY

72. DEPARTMENT OF THE INTERIOR

73. UNITED STATES

74. GEOLOGICAL SURVEY

75. DEPARTMENT OF THE INTERIOR

76. UNITED STATES

77. GEOLOGICAL SURVEY

78. DEPARTMENT OF THE INTERIOR

79. UNITED STATES

80. GEOLOGICAL SURVEY

81. DEPARTMENT OF THE INTERIOR

82. UNITED STATES

83. GEOLOGICAL SURVEY

84. DEPARTMENT OF THE INTERIOR

85. UNITED STATES

86. GEOLOGICAL SURVEY

87. DEPARTMENT OF THE INTERIOR

88. UNITED STATES

89. GEOLOGICAL SURVEY

90. DEPARTMENT OF THE INTERIOR

91. UNITED STATES

92. GEOLOGICAL SURVEY

93. DEPARTMENT OF THE INTERIOR

94. UNITED STATES

95. GEOLOGICAL SURVEY

96. DEPARTMENT OF THE INTERIOR

97. UNITED STATES

98. GEOLOGICAL SURVEY

99. DEPARTMENT OF THE INTERIOR

100. UNITED STATES

101. GEOLOGICAL SURVEY

102. DEPARTMENT OF THE INTERIOR

103. UNITED STATES

104. GEOLOGICAL SURVEY

105. DEPARTMENT OF THE INTERIOR

106. UNITED STATES

107. GEOLOGICAL SURVEY

108. DEPARTMENT OF THE INTERIOR

109. UNITED STATES

110. GEOLOGICAL SURVEY

111. DEPARTMENT OF THE INTERIOR

112. UNITED STATES

113. GEOLOGICAL SURVEY

114. DEPARTMENT OF THE INTERIOR

115. UNITED STATES

116. GEOLOGICAL SURVEY

117. DEPARTMENT OF THE INTERIOR

118. UNITED STATES

119. GEOLOGICAL SURVEY

120. DEPARTMENT OF THE INTERIOR

121. UNITED STATES

122. GEOLOGICAL SURVEY

123. DEPARTMENT OF THE INTERIOR

124. UNITED STATES

125. GEOLOGICAL SURVEY

126. DEPARTMENT OF THE INTERIOR

127. UNITED STATES

128. GEOLOGICAL SURVEY

129. DEPARTMENT OF THE INTERIOR

130. UNITED STATES

131. GEOLOGICAL SURVEY

132. DEPARTMENT OF THE INTERIOR

133. UNITED STATES

134. GEOLOGICAL SURVEY

135. DEPARTMENT OF THE INTERIOR

136. UNITED STATES

137. GEOLOGICAL SURVEY

138. DEPARTMENT OF THE INTERIOR

139. UNITED STATES

140. GEOLOGICAL SURVEY

141. DEPARTMENT OF THE INTERIOR

142. UNITED STATES

143. GEOLOGICAL SURVEY

144. DEPARTMENT OF THE INTERIOR

145. UNITED STATES

146. GEOLOGICAL SURVEY

147. DEPARTMENT OF THE INTERIOR

148. UNITED STATES

149. GEOLOGICAL SURVEY

150. DEPARTMENT OF THE INTERIOR

151. UNITED STATES

152. GEOLOGICAL SURVEY

153. DEPARTMENT OF THE INTERIOR

154. UNITED STATES

155. GEOLOGICAL SURVEY

156. DEPARTMENT OF THE INTERIOR

157. UNITED STATES

158. GEOLOGICAL SURVEY

159. DEPARTMENT OF THE INTERIOR

160. UNITED STATES

161. GEOLOGICAL SURVEY

162. DEPARTMENT OF THE INTERIOR

163. UNITED STATES

164. GEOLOGICAL SURVEY

165. DEPARTMENT OF THE INTERIOR

166. UNITED STATES

167. GEOLOGICAL SURVEY

168. DEPARTMENT OF THE INTERIOR

169. UNITED STATES

170. GEOLOGICAL SURVEY

171. DEPARTMENT OF THE INTERIOR

172. UNITED STATES

173. GEOLOGICAL SURVEY

174. DEPARTMENT OF THE INTERIOR

175. UNITED STATES

176. GEOLOGICAL SURVEY

177. DEPARTMENT OF THE INTERIOR

178. UNITED STATES

179. GEOLOGICAL SURVEY

180. DEPARTMENT OF THE INTERIOR

181. UNITED STATES

182. GEOLOGICAL SURVEY

183. DEPARTMENT OF THE INTERIOR

184. UNITED STATES

185. GEOLOGICAL SURVEY

186. DEPARTMENT OF THE INTERIOR

187. UNITED STATES

188. GEOLOGICAL SURVEY

189. DEPARTMENT OF THE INTERIOR

190. UNITED STATES

191. GEOLOGICAL SURVEY

192. DEPARTMENT OF THE INTERIOR

193. UNITED STATES

194. GEOLOGICAL SURVEY

195. DEPARTMENT OF THE INTERIOR

196. UNITED STATES

197. GEOLOGICAL SURVEY

198. DEPARTMENT OF THE INTERIOR

199. UNITED STATES

200. GEOLOGICAL SURVEY

201. DEPARTMENT OF THE INTERIOR

202. UNITED STATES

203. GEOLOGICAL SURVEY

204. DEPARTMENT OF THE INTERIOR

205. UNITED STATES

206. GEOLOGICAL SURVEY

207. DEPARTMENT OF THE INTERIOR

208. UNITED STATES

209. GEOLOGICAL SURVEY

210. DEPARTMENT OF THE INTERIOR

211. UNITED STATES

212. GEOLOGICAL SURVEY

213. DEPARTMENT OF THE INTERIOR

214. UNITED STATES

215. GEOLOGICAL SURVEY

216. DEPARTMENT OF THE INTERIOR

217. UNITED STATES

218. GEOLOGICAL SURVEY

219. DEPARTMENT OF THE INTERIOR

220. UNITED STATES

221. GEOLOGICAL SURVEY

222. DEPARTMENT OF THE INTERIOR

223. UNITED STATES

224. GEOLOGICAL SURVEY

225. DEPARTMENT OF THE INTERIOR

226. UNITED STATES

227. GEOLOGICAL SURVEY

228. DEPARTMENT OF THE INTERIOR

229. UNITED STATES

230. GEOLOGICAL SURVEY

231. DEPARTMENT OF THE INTERIOR

232. UNITED STATES

233. GEOLOGICAL SURVEY

234. DEPARTMENT OF THE INTERIOR

235. UNITED STATES

236. GEOLOGICAL SURVEY

237. DEPARTMENT OF THE INTERIOR

238. UNITED STATES

239. GEOLOGICAL SURVEY

240. DEPARTMENT OF THE INTERIOR

241. UNITED STATES

242. GEOLOGICAL SURVEY

243. DEPARTMENT OF THE INTERIOR

244. UNITED STATES

245. GEOLOGICAL SURVEY

246. DEPARTMENT OF THE INTERIOR

247. UNITED STATES

248. GEOLOGICAL SURVEY

249. DEPARTMENT OF THE INTERIOR

250. UNITED STATES

251. GEOLOGICAL SURVEY

252. DEPARTMENT OF THE INTERIOR

253. UNITED STATES

254. GEOLOGICAL SURVEY

255. DEPARTMENT OF THE INTERIOR

256. UNITED STATES

257. GEOLOGICAL SURVEY

258. DEPARTMENT OF THE INTERIOR

259. UNITED STATES

260. GEOLOGICAL SURVEY

261. DEPARTMENT OF THE INTERIOR

262. UNITED STATES

263. GEOLOGICAL SURVEY

264. DEPARTMENT OF THE INTERIOR

265. UNITED STATES

266. GEOLOGICAL SURVEY

267. DEPARTMENT OF THE INTERIOR

268. UNITED STATES

269. GEOLOGICAL SURVEY

270. DEPARTMENT OF THE INTERIOR

271. UNITED STATES

272. GEOLOGICAL SURVEY

273. DEPARTMENT OF THE INTERIOR

274. UNITED STATES

275. GEOLOGICAL SURVEY

276. DEPARTMENT OF THE INTERIOR

277. UNITED STATES

278. GEOLOGICAL SURVEY

279. DEPARTMENT OF THE INTERIOR

280. UNITED STATES

281. GEOLOGICAL SURVEY

282. DEPARTMENT OF THE INTERIOR

283. UNITED STATES

284. GEOLOGICAL SURVEY

285. DEPARTMENT OF THE INTERIOR

286. UNITED STATES

287. GEOLOGICAL SURVEY

288. DEPARTMENT OF THE INTERIOR

289. UNITED STATES

290. GEOLOGICAL SURVEY

291. DEPARTMENT OF THE INTERIOR

292. UNITED STATES

293. GEOLOGICAL SURVEY

294. DEPARTMENT OF THE INTERIOR

295. UNITED STATES

296. GEOLOGICAL SURVEY

297. DEPARTMENT OF THE INTERIOR

298. UNITED STATES

299. GEOLOGICAL SURVEY

300. DEPARTMENT OF THE INTERIOR

301. UNITED STATES

302. GEOLOGICAL SURVEY

303. DEPARTMENT OF THE

Identification No. 349-82

United States Department of the Interior  
Minerals Management Service  
2000 Administration Building  
1745 West 1700 South  
Salt Lake City, Utah 84104-3884

NEPA CATEGORICAL EXCLUSION REVIEW

PROJECT IDENTIFICATION

Operator Beartooth Oil & Gas Company  
Project Type Oil well - wildcat  
Project Location 1925 FNL 609 FEL Sec 33 T16S-R25E  
Well No. 33-8 Lease No. U-51052  
Date Project Submitted 5-28-82

SALT LAKE CITY, UTAH

JUL 1 1982

MINERALS MANAGEMENT  
SERVICE  
OIL & GAS OPERATIONS  
RECEIVED

FIELD INSPECTION

Date 6-24-82

Field Inspection  
Participants

Craig Hansen - MMS - UTMAL  
Glenn Duncan BLM MMS  
Kevin O'Leary " "  
Paul Brown " "  
Tom Curry Beartooth

I have reviewed the proposal in accordance with the categorical exclusion review guidelines. This proposal would not involve any significant effects and, therefore, does not represent an exception to the categorical exclusions.

6-25-82  
Date Prepared

Craig Hansen  
Environmental Scientist

I concur

JUL 01 1982  
Date

W. W. Martin  
District Supervisor

FOR E. W. GUYNN  
DISTRICT OIL & GAS SUPERVISOR

# CATEGORICAL EXCLUSION REVIEW INFORMATION SOURCE

Criteria	Federal/State Agency			Local and private correspondence (date)	Previous NEPA	Other studies and reports	Staff expertise	Onsite inspection (date)	Other
	Correspondence (date)	Phone check (date)	Meeting (date)						
516 DM 2.3.A									
Public health and safety	BLM 6-30-82						2	6-24-82 246	
Unique characteristics	/						2	246	
Environmentally controversial	/						2	246	
Uncertain and unknown risks	/						2	246	
Establishes precedents	/						2	246	
Cumulatively significant	/						2	246	
National Register historic places	/						2	246	
Endangered/threatened species	/								
Violate Federal, State, local, tribal law	/								

# CATEGORICAL EXCLUSION REVIEW COMMON REFERENCE LEGEND

1. Surface Management Agency Input
2. Reviews Reports, or information received from Geological Survey  
(Conservation Division, Geological Division, Water Resource Division,  
Topographic Division)
3. Lease Stipulations/Terms
4. Application Permit to Drill
5. Operator Correspondence
6. Field Observation
7. Private Rehabilitation Agreement



Bear Tooth  
# 33-8



Recommended Specifications for  
Burr Tooth Oil #33-8.

1. Location will be approx 13'  
W of to coordinate State Spraying

2 Location will be rotated  
45° Counter Clockwise to  
reduce cut and fill.

3 Production Amplifiers will be  
Painted a color to blend in  
with the natural surroundings

4. Reserve pits will be lined with  
A plastic to ensure pit integrity  
Size of reserve pits will be  
180x25 Plus A T 145x25

5. Operator will adhere to Bm  
Surface Specifications



# United States Department of the Interior

IN REPLY REFER TO

3109  
(U-068)

BUREAU OF LAND MANAGEMENT  
Moab District  
Grand Resource Area  
P.O. Box M  
Moab, Utah 84532



JUN 28 1982

## Memorandum

To: Oil & Gas Office, Minerals Management Service  
P.O. Box 1037  
Vernal, Utah 84078

From: Area Manager, Grand

Subject: Approval to Drill U-51052  
Beartooth 33-8  
Section 33, T. 16 S., R. 25 E.  
Grand County, Utah

On June 23, 1982 a representative from this office met with Cody Hansen, Minerals Management Service (MMS), and Ken Currey, agent of the Beartooth Co. for an inspection of the above referenced location. Subject to the attached conditions and written approval from MMS, I am approving the surface management portion of the Application for Permit to Drill.

The archaeological requirement has been fulfilled on this location. No threatened or endangered flora or fauna are indicated in the area.

Please forward the enclosed information to Beartooth Oil & Gas Co.

Enclosure (3)  
1-Reclamation Procedures  
2-Seed Mixture  
3-Suggested Colors - Production Facilities

Company: Beartooth  
Well: 33-8  
Section 33, T. 16 S., R. 25 E.

ADDITIONS TO THE MULTIPOINT  
SURFACE USE PLAN  
AND  
RECLAMATION PROCEDURES

CONSTRUCTION

1. The operator or his contractor will contact the Grand Resource Area Office in Moab, Utah (phone (801) 259-6111) 48 hours prior to beginning any work on public land.
2. The dirt contractor will be furnished with an approved copy of the surface use plan and any additional BLM stipulations prior to any work.
3. Use of water from sources such as wells, springs, streams or stock ponds for activities associated with this well will be approved, prior to use, by the agency or individual holding the water right.
4. If subsurface cultural material is exposed during construction, work in that spot will stop immediately and the Grand Resource Area Office will be contacted. All employees working in the area will be informed by the operator that they will be subject to prosecution if they are caught disturbing archaeological sites or picking up artifacts. Salvage or excavation of identified archaeological sites will only be done if damage occurs.
5. Improvement to the existing road will not be necessary. The total disturbed width allowed will be as is. The allowable travel surface will be as is.

New road construction will be limited to an allowable travel surface width of 18 feet. For construction design and survey refer to Class III road standards attachment. Please give this office 24 hour advance notice after the road and location are finished but before construction equipment has left location.

Trees will be stockpiled on the uphill side of the road, separate from the topsoil.

Topsoil will be saved along the route between the trees and the road.

Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.

Surfacing material will not be placed on the access road or location without prior BLM approval.

6. Location: Satisfactory with the following changes: rotate the pad 45 degrees counter-clock wise, move 15 feet west, reduce pad to 200 x 300, pit on north east side of pad, and pit "T" shaped as discussed on site.
7. As much as possible, soil material will be removed from the location and stockpiled separate from the trees on the west side of the location. Topsoil along the access will be reserved in place.

Trees will be stockpiled separate from the topsoil/excess material on the south side of location.

8. The reserve pit will be lined with commercial bentonite or plastic plastic sufficient to prevent seepage. Keyway. The reserve pit banks will be 1.5 to 2.0 feet above pad and constructed in 8 inch lifts, machinery compacted, and sufficiently wide for equipment to pass over.
9. Three sides of the reserve pit will be fenced before drilling starts. The fourth side will be fenced as soon as the drilling is completed. The fence will be kept in good repair while the pit is drying. The fence will be 4 or 5 strand barbed wire.

## PRODUCTION

- 1. The reserve pit and that portion of the location and access road not needed for production or production facilities will be reclaimed in the methods described in the rehabilitation section. All of the stockpiled topsoil will be used in reclaiming the unused areas.
2. All above-ground production facilities will be painted using the attached suggested colors.
3. The access will be to the design of a Class III road.
4. Any and all burning will require a permit from the State Division of Forestry and Lands Office in Moab.

## REHABILITATION

1. Immediately upon completion of drilling, the location and surrounding area will be cleared of all debris resulting from the operation. All trash will be disposed of in the trash cage. Non-burnable debris will be hauled to a local town dump site.
2. The operator or his contractor will contact the Grand Resource Area BLM Office in Moab, Utah, phone (801) 269-6111, 48 hours prior to starting rehabilitation work that involves earthmoving equipment and upon completion of restoration measures.
3. Before any dirt work to restore the location takes place, the reserve pit must be completely dry and any trash (barrels, metal etc.) it contains must be removed from public lands.
4. All disturbed areas will be recontoured to blend as nearly as possible with the surrounding area.
5. The stockpiled topsoil will be evenly distributed over the disturbed area.
6. All disturbed areas will be scarified with the contour to a depth of 6 inches. Do not smooth pads out, leave a roughened surface.
7. Seed will be (broadcast/drilled) at a time to be specified by the BLM with the following seed prescription. When broadcast seeding, a harrow or some such implement will be dragged over the seeded area to assure seed cover.
8. After seeding is complete the stockpiled trees will be scattered evenly over the disturbed areas and walked down with a dozer. The access will be blocked to prevent any use/vehicle use.
9. Waterbars will be used as needed on all sloping surfaces as shown below:

<u>Grade</u>	<u>Spacing</u>
2%	200 ft. spacing
2-4%	100 ft. spacing
4-5%	75 ft. spacing
+5%	50 ft. spacing

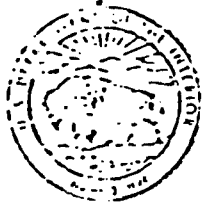
10. Due to the tight area and excessive slopes, BLM recommends the use of a backhoe to recontour pad/road. Hand seeding will also be recommended.

# SEED MIXTURE

<u>Species</u>		<u>lb/aces</u>
<u>Grasses</u>		
Agropyron inerme	Beardless bluebunch	1
Oryzopsis hymenoides	Indian ricegrass	1
Poa fendleriana	Muttongrass	1
<u>Forbs</u>		
Medicago sativa	Alfalfa	1
Penstemon palmeri	Palmer penstemon	
	(Pind wild snap dragon)	1
<u>Shrubs</u>		
Cercocarpus montanus	Birchleaf mountain-mahogany	1
	(True mahogany)	
Purshia tridentata	Antelope bitterbrush	<u>1</u>
		7 lbs/acre

Broadcast seed will be applied at double the above rate.

Seeding will be done in the fall of the year (Oct. - Dec.)



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

### SUGGESTED COLORS TO PAINT OIL & GAS PRODUCTION FACILITIES

#### Cisco Desert and Flats below the Bookcliffs:

Dynasty Green	(Sears)
Tumbleweed	(Pratt & Lambert)
Desert Tan	-----
Sage Gray	(Pratt & Lambert)

#### Bookcliffs Region:

Sage Gray	(Pratt & Lambert)
Sea Life	(Pratt & Lambert)
Dynasty Green	(Sears)

Similar hues other than the ones mentioned above must be approved by the Grand Resource Area Manager.



TWELVE POINT PLAN OF DEVELOPMENT  
FOR SURFACE USE FOR THE  
BEARTOOTH OIL & GAS COMPANY

FEDERAL NO. 33-8  
SE $\frac{1}{4}$ NE $\frac{1}{4}$  Section 33-T16S-R25E, SLBM  
Grand County, Utah

1. Existing Roads - a legible map showing:

- A. Proposed well site as staked. (Actual staking should include two each 200-foot directional reference stakes.): See Survey Plat - Plat #1
- B. Route and distance from nearest town or locatable reference point to where well access route leaves main road: This wellsite is approximately 20 miles NW of Mack, Colorado. It is reached by going 9.5 miles west of Mack on old US 6 & 24; then 16.2 miles up the San Arroyo Road to the gas plant; then 4.2 miles up and over the switchbacks; turn left and go 2.4 miles south on the existing road to the beginning of the 1.0 miles of new construction.
- C. Access road(s) to location color-coded or labeled: See Map #1 and Vicinity Map #3
- D. If exploratory well, all existing roads within a 3-mile radius (including type of surface, conditions, etc.): N/A
- E. If development well, all existing roads within a 1-mile radius of wellsite: All existing roads are shown on Map #1.
- F. Plans for improvement and/or maintenance of existing roads: Occasional blading is done by producing and pipeline companies in the area. Beartooth Oil & Gas Company will do maintenance blading on this road.

2. Planned Access Roads - See Map #1

Map showing all necessary access roads to be constructed or reconstructed, showing:

- (1) Width & Disturbance: The road will be constructed with an 18 foot driving surface. The disturbed width will vary with topography from 30 to 120 feet.
- (2) Maximum grades: The maximum grade will be 8% except for one 12% short pitch grade.
- (3) Turnouts: Turnouts will be constructed so that they are inter-visible as topography dictates.
- (4) Drainage design: Natural drainage; road will follow contour of the land.
- (5) Location and size of culverts and brief description of any major cuts and fills: No culverts are planned. All roads will be of full-bench construction on side slopes
- (6) Surfacing material: Native material only; no material will be brought in.
- (7) Necessary gates, cattleguards, or fence cuts: No fences are crossed by this road
- (8) New or reconstructed roads are to be center-line flagged at time of location staking: The road is flagged.

3. Location of Existing Wells

Two-mile radius map if exploratory, or 1-mile radius map if development well showing and identifying existing (see Well Map No. 2)

- (1) Water wells: None
- (2) Abandoned wells: None
- (3) Temporarily abandoned wells: None
- (4) Disposal wells: None
- (5) Drilling wells: None - 2 locations
- (6) Producing wells: Two
- (7) Shut-in wells: None
- (8) Injection wells: None
- (9) Monitoring or observation wells for other resources: None

4. Location of Existing and/or Proposed Facilities

A. Within 1-mile radius of location show the following existing facilities owned or controlled by lessee/operator:

- 1. Tank batteries: None
- 2. Production facilities: Separators and meter runs at gas wells shown on Map No. 2
- (3) Oil gathering lines: None
- (4) Gas gathering lines: See Map No. 1 - lines are buried
- (5) Injection lines: None
- (6) Disposal lines: None

(Indicate if any of the above lines are buried.)

B. If new facilities are contemplated, in the event of production, show:

- (1) Proposed location and attendant lines by flagging if off of well pad: Gathering system not designed at this time
- (2) Dimensions of facilities: See Plat No. 4. Separator 5' x 10', meter run 5' x 8', on drillsite pad and painted green to blend with the environment.
- (3) Construction methods and materials: No materials necessary. All lines will be coated, wrapped, and buried. See Plat No. 4.
- (4) Protective measures and devices to protect livestock and wildlife: A 10' x 10' water pit within 50' of the separator will be fenced. A metal guard or fiberglass shelter will be around the wellhead.

4. Location of Existing and/or Proposed Facilities (Continued)

- C. Plan for rehabilitation of disturbed areas no longer needed for operations after construction is completed: Upon completion of the drilling of this well, all pits will be backfilled and top soil replaced and re-contoured back to original terrain. Upon abandonment, all disturbed areas, including the location and access road, will be re-contoured, ripped or scarified as needed, and re-vegetated using a seed formula as specified by the BLM. Seeding will be done in the fall.
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

5. Location and Type of Water Supply

- A. Show location and type of water supply either on map or by written description: The water supply for this well will be West Salt Creek, 2 miles west of Mack, Colorado.
- \_\_\_\_\_
- \_\_\_\_\_
- B. State method of transporting water and show any roads or pipelines needed: Water will be transported by truck over the existing roadways and proposed access.
- \_\_\_\_\_
- C. If water well is to be drilled on lease, so state. (No APD for water well is necessary, however, unless it will penetrate potential hydrocarbon horizons): No water well is to be drilled.
- \_\_\_\_\_
- \_\_\_\_\_

6. Source of Construction Materials

- A. Show information either on map or by written description: No construction materials will be used other than native materials.
- \_\_\_\_\_
- \_\_\_\_\_
- B. Identify if from Federal or Indian land: Not applicable.
- \_\_\_\_\_
- C. Describe where materials, such as sand, gravel, stone, and soil material are to be obtained and used: Soil from cuts will be used for fills. No outside material will be brought in.
- \_\_\_\_\_
- \_\_\_\_\_
- D. Show any needed access, roads crossing Federal or Indian lands under Item 2:
- \_\_\_\_\_
- \_\_\_\_\_

7. Methods for Handling Waste Disposal

Describe methods and location of proposed containment and disposal of waste material, including:

- (1) Cuttings: Cuttings will be buried in the reserve pit. The reserve pit will be constructed to fit the topography. It will be fenced on 3 sides during drilling and closed off on the 4th side at rig release.
- \_\_\_\_\_
- (2) Drilling fluids: Drilling fluids will be handled in the reserve pit and left to evaporate.
- \_\_\_\_\_
- \_\_\_\_\_
- (3) Produced fluids (oil, water): Any fluids produced during drilling test or while making production test will be collected in a test tank. If a test tank is not available during drilling, fluids will be handled in reserve pit. Any spills of oil, gas, salt water or other noxious fluids will be cleaned up and removed. If well is productive, produced water will be disposed of onsite for 30 days only, or 90 days with permission of District Supervisor. After that time, application will be made for approval of permanent disposal method in compliance with NTL-2b, and the rules and regulations of the State of Colorado.
- \_\_\_\_\_
- \_\_\_\_\_

## 7. Methods for Handling Waste Disposal (Continued)

- (4) Sewage: Human waste will be disposed of in chemically treated sanitary pits.
- (5) Garbage and other waste material (trash pits should be fenced with small mesh wire to prevent wind scattering trash before being burned or buried): Garbage, waste, salts and other chemicals produced during drilling or testing will be handled in a trash cage. The trash cage will be totally enclosed with small mesh wire to prevent wind scattering trash before being removed. Reserve pit will be fenced on 3 sides during drilling and closed off on the 4th side at the time of rig release.
- (6) Statement regarding proper cleanup of wellsite area when rig moves out: Drilling fluid in pit, which will be very minimal due to air drilling, will be left to dry, if necessary. After pit area is sufficiently dry, cuttings will be pushed into pit and sub-soil placed on top of any remaining fluid and cuttings; then top soil will be used to cover both pit and location area.

## 8. Ancillary Facilities

Identify all proposed camps and airstrips on a map as to their location, area required and construction methods. (Camp center and airstrip center lines to be staked on the ground): No air strip, camp or other facilities will be built during drilling of this well.

## 9. Wellsite Layout

A plat (not less than 1" = 50') showing:

- (1) Cross sections of drill pad with cuts and fills: See Plat No. 2-A
- (2) Location of mud tanks, reserve, burn and trash pits, pipe racks, living facilities, and soil material stockpiles: See Plats Nos. 2 & 3  
The location and reserve pit will be constructed as topography dictates.
- (3) Rig orientation, parking areas and access roads: See Plat No. 3
- (4) Statement as to whether pits are to be lined or unlined. (Approval as used in this section means field approval of location. All necessary staking of facilities may be done at the time of field inspection. A registered surveyor is not mandatory for such operations): Pits will be unlined.

## 10. Plans for Restoration of Surface

State restoration program upon completion of operations, including:

- (1) Backfilling, leveling, contouring and waste disposal; segregation of spoils materials as needed: If well is abandoned, site will be restored to original condition as nearly as possible. Backfilling, levelling, and contouring are planned as soon as all pits have dried. Waste disposal and spoils materials will be buried or hauled away immediately to an approved sanitary land fill after drilling is completed. If production is obtained, the unused area will be restored as soon as possible.
- (2) Revegetation and rehabilitation, including access roads (normally per BLM recommendations): The soil banked material will be spread over the area. Re-vegetation will be accomplished by planting mixed grasses as per BLM specifications.
- (3) Prior to rig release, pits will be fenced and so maintained until clean-up: Three sides of the reserve pit will be fenced during drilling and closed off on the 4th side following rig release to prevent livestock or wildlife from entering; and the fencing will be maintained until leveling and cleanup are accomplished.

10. Plans for Restoration of Surface (Continued)

- (4) If oil on pit, remove oil or install overhead flagging: If any oil is on the pits and is not immediately removed or burned after operations cease, the pit containing the oil or other adverse substances will be flagged overhead or covered with wire mesh.
- (5) Timetable for commencement and completion of rehabilitation operations: The rehabilitation operations will begin immediately after the drilling rig is removed. Removal of oil or other adverse substances will begin immediately or area will be flagged and fenced. Other cleanup will be done as needed. Planting and re-vegetation is considered best in the fall, between Sept. 15 and Nov. 15.

11. Other Information

General description of:

- (1) Topography, soil characteristics, geologic features, flora and fauna: The topography is very rough as that common to the Bookcliffs. Vegetation consists of sparse pinon-juniper forest with some serviceberry and native grass areas. Mule deer, coyotes and native birds inhabit the area. Soils are shallow and rocky.
- (2) Other surface use activities and surface ownership of all involved lands: All lands involved with new construction are Public Lands.
- (3) Proximity of water, occupied dwellings, archeological, historical or cultural sites: The closest occupied dwelling is the San Arroyo Gas Plant. The closest live water is East Canyon 5 air miles west of the location.
- A cultural resource survey has been completed and the report is filed with the BLM in Moab, Utah.

12. Lessee's or Operator's Representative

Include the name, address and phone number of the lessee's or operator's field representative who is responsible for assuring compliance with the approved surface use and operations plan:

James G. Routson  
Beartooth Oil & Gas Company  
P. O. Box 2564  
Billings, MT 59103  
Office Ph: 406-259-2451  
Home Ph: 406-245-8797

Ken Currey  
Box 1491  
Fruita, CO 81521  
Mobile Phone: 303-245-3660 Unit 5858  
Home Ph; 303-858-3257

13: Certification

The following statement is to be incorporated in the plan and must be signed by the lessee's or operator's field representative who is identified in Item No. 12 of the plan:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Beartooth Oil & Gas Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

5/26/82  
Date

Ken Currey  
Ken Currey

WELL CONTROL PLAN

1. Surface Casing: 9-5/8" O.D., 32.3 #/ft., Grade H-40, Short T&C, set at 200' or deeper, cemented with pump and plug method back to the surface or bottom of cellar.
2. Casinghead Flange: 9-5/8" x 10-3/4" - 900 series casinghead with two 2" 2000 psi L.P. outlets.
3. Intermediate Casing: 7", 20#, K-55, set at 2150' and cemented with 150 sacks. The intermediate spool will be 10" - 900 x 10" - 900 series with two 2" 2000 psi L.P. outlets.
4. Blowout Preventor: A 10" 3000 psig W.P. double gate hydraulic shaffer BOP ( or equivalent ) with drill pipe rams and blind rams. All fill, kill and choke lines will be minimum of 2" 2000 psi W.P. A Grant rotating head will be used while air and mist drilling. A new rubber will be installed prior to drilling through the Dakota. BOP's will be worked daily. Blind rams will be checked during trips. BOP's will be tested to 2000 psi prior to drilling shoe joint on surface casing and intermediate casing.
5. Auxiliary Equipment: (a) Drill pipe floats will be allowed at contractor's discretion. (b) Visual monitoring of air returns will be maintained. (c) Upper kelly cock will be used. (d) Stabbing valve will be kept on floor.
6. Anticipated bottom hole pressure is less than 1500 psi at 6200' or a gradient of .24 psi/ft or less. No abnormal temperatures or hydrogen sulfide gas is sufficient.

BEARTOOTH OIL & GAS COMPANY

By:

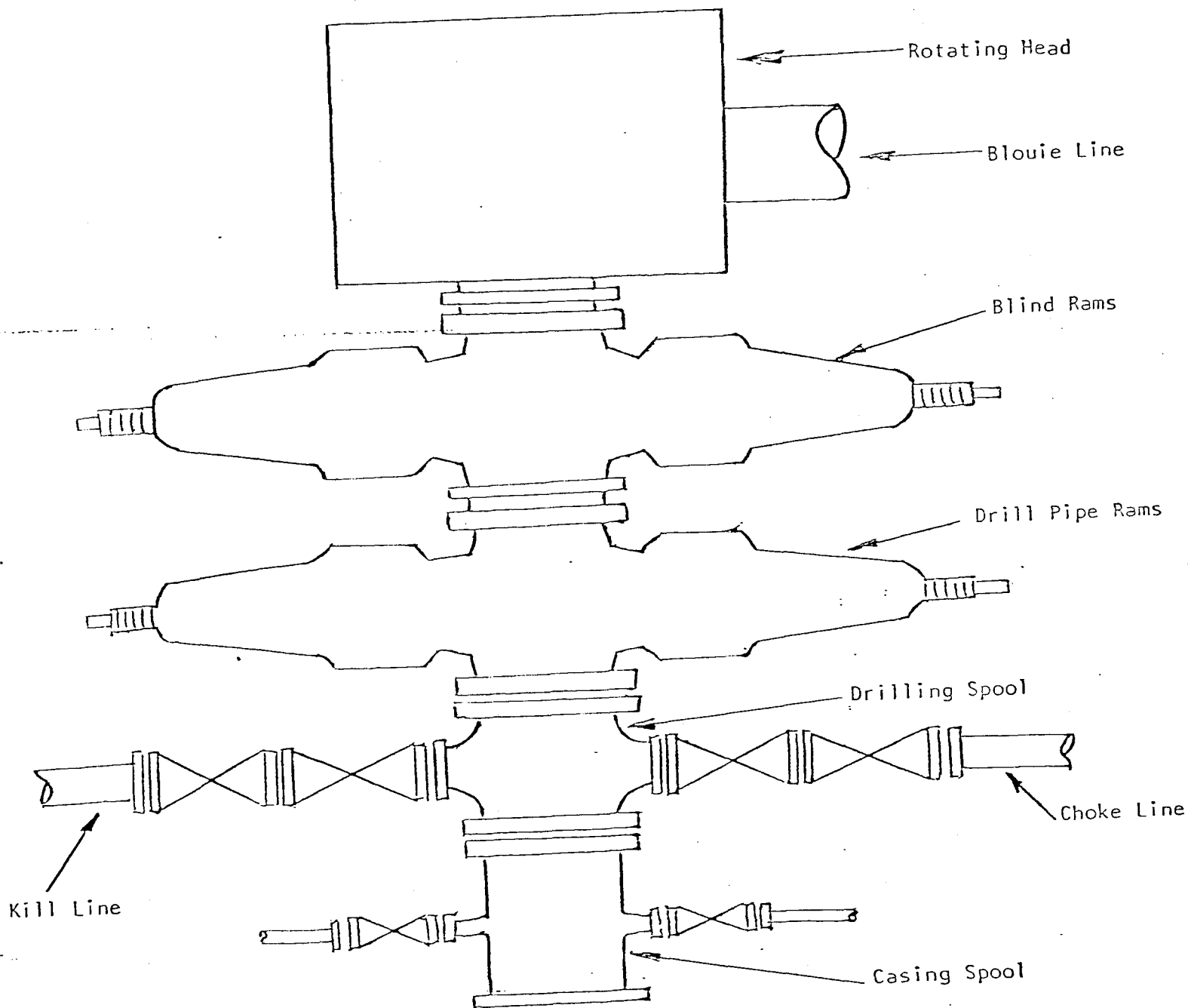
James G. Routson  
James G. Routson, Petroleum Engineer

# SCHEMATIC OF BOP STACK

Federal #33-8

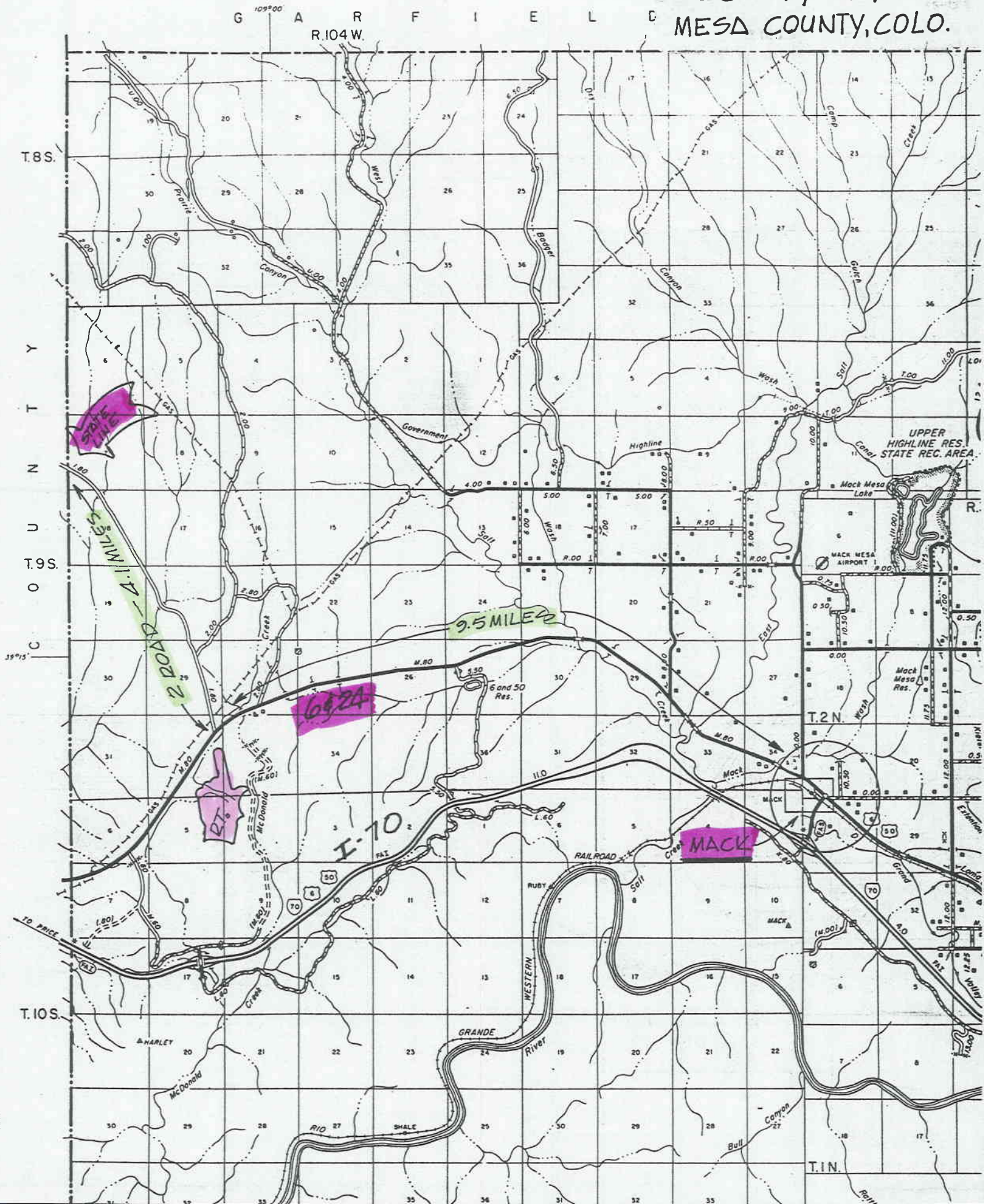
Air drilled wells using 900 series wellhead equipment.

Interval from 200' to total depth.



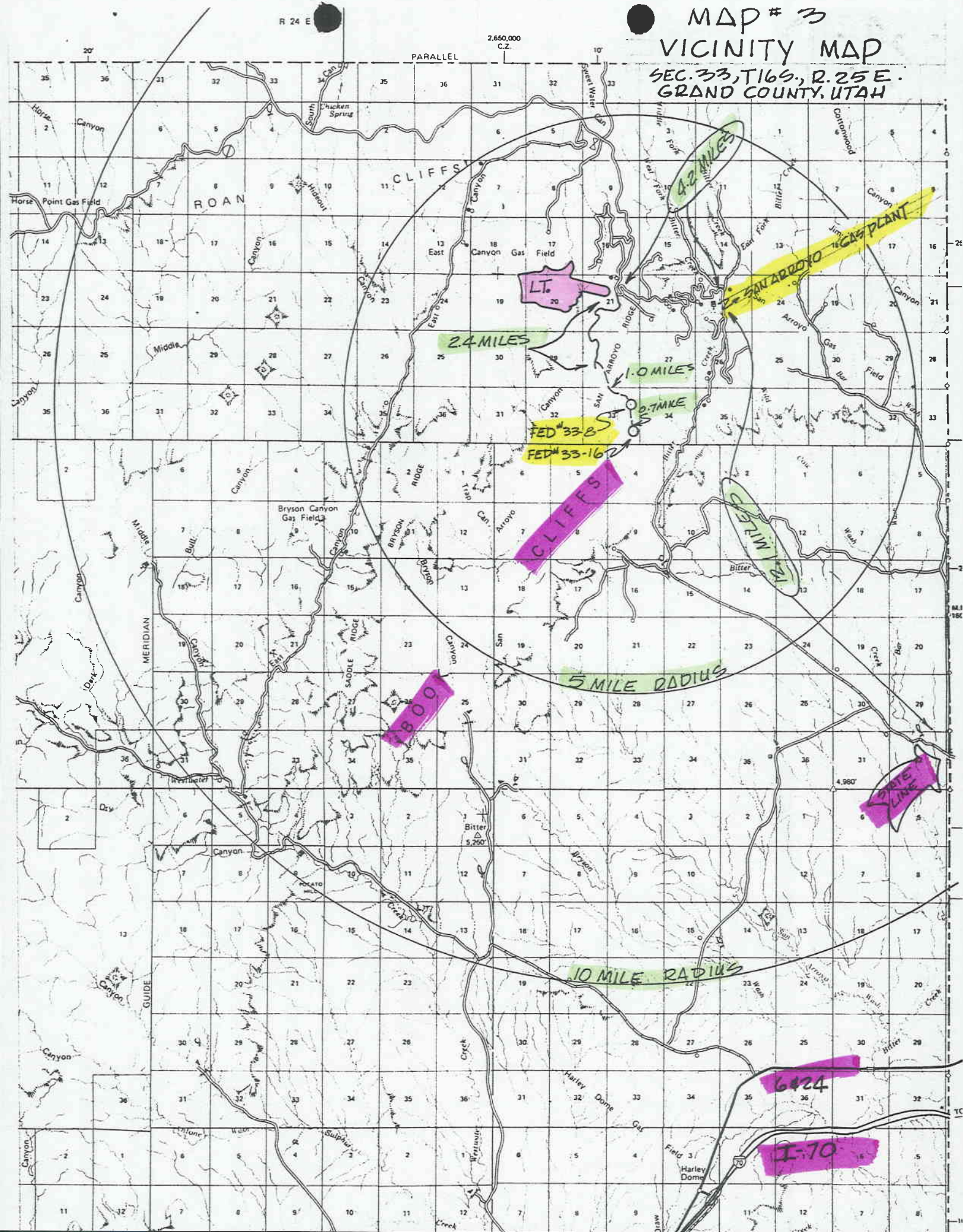


G A R F I E L D  
R.104 W.



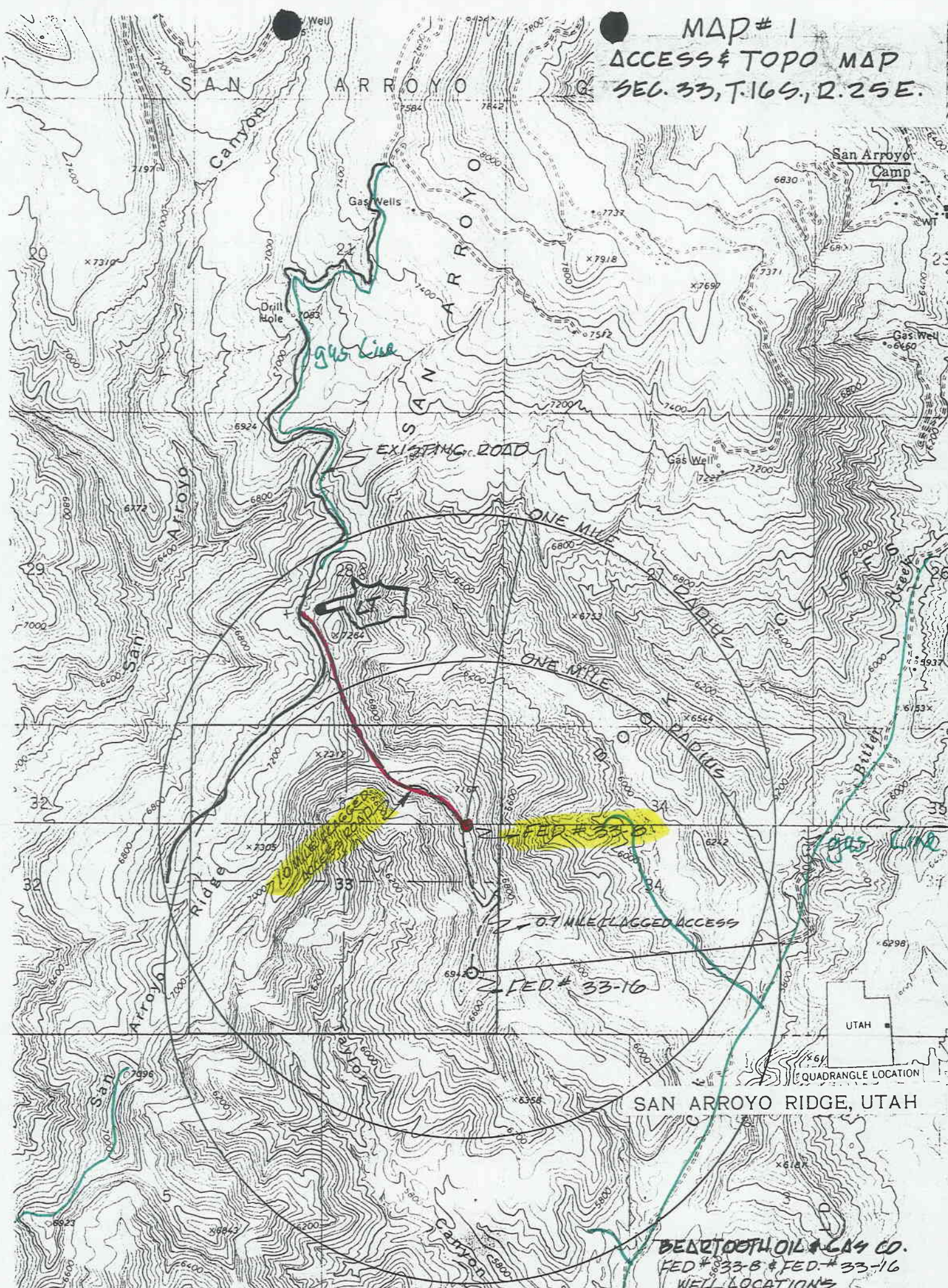


SEC. 33, T16S., R. 25 E.  
GRAND COUNTY, UTAH





MAP # 1  
ACCESS & TOPO MAP  
SEC. 33, T.16S., R.25E.



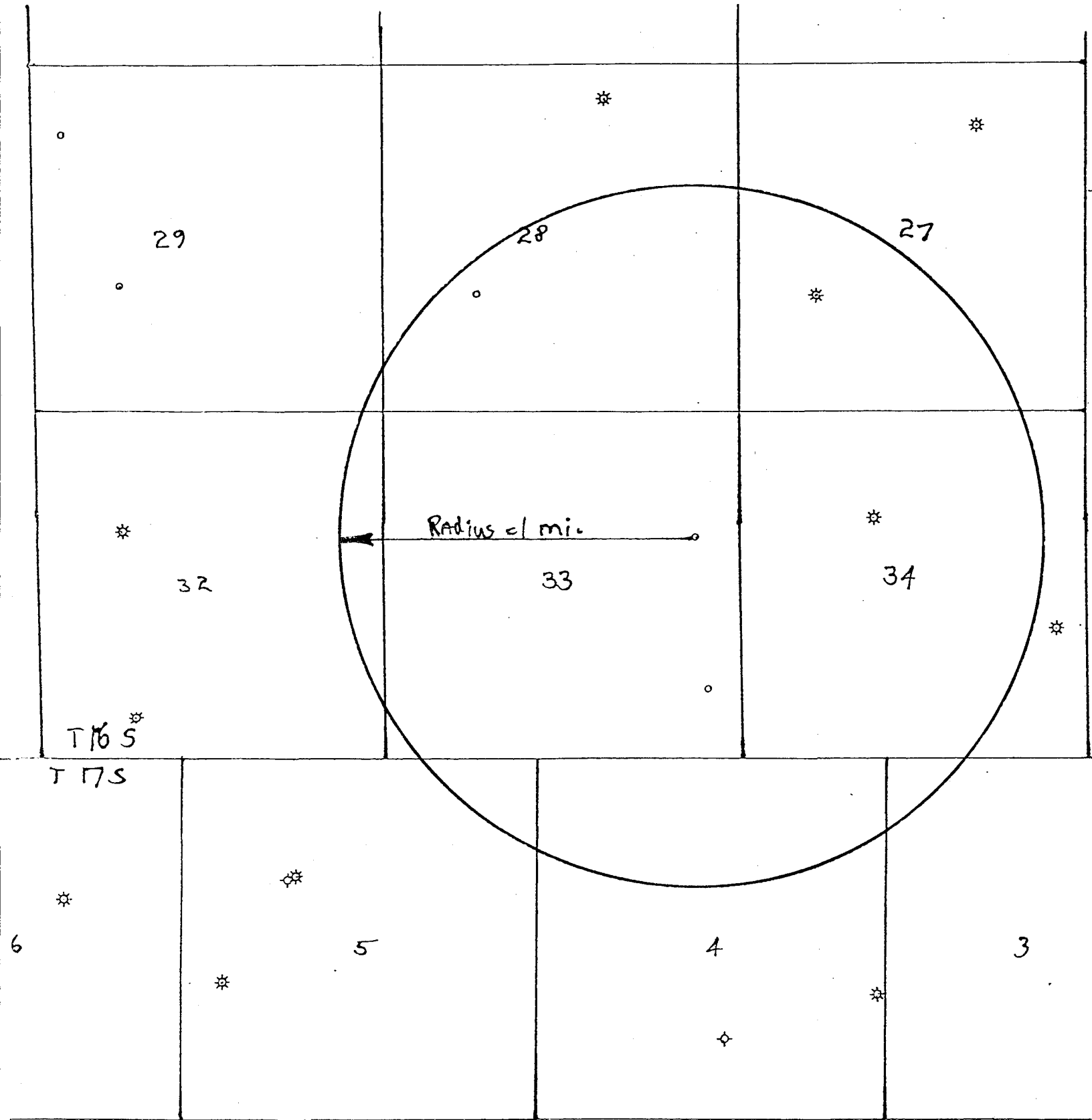
SAN ARROYO RIDGE, UTAH

BEAR TOOTH OIL & GAS CO.  
FED # 33-8 & FED # 33-16  
WELL LOCATIONS



WELL MAP

MAP NO. 2



LIST OF WELL FOR MAP NO. 2

T16S-R25E

NW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 27	Arco No. 9, San Arroyo Unit
NE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 27	Arco No. 27 Arco
NE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 28	TXO Prod. #1 Grynberg-Federal
NW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 28	TXO Prod. #1 Nicor-Federal
NW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 29	TXO Prod. #1 Lauck-Federal
NW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 29	TXO Prod. #1 Lauck-Federal
SE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 32	Northwest Expl. #1 Utah State
SW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 32	Northwest Expl. #2 Utah State
SE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 33	Beartooth Federal #33-8
SE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 33	Beartooth Federal #33-16
NE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 34	Texas Oil & Gas #1 Aro Federal-D
SE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 34	Texas Oil & Gas #2 Valentine-Federal

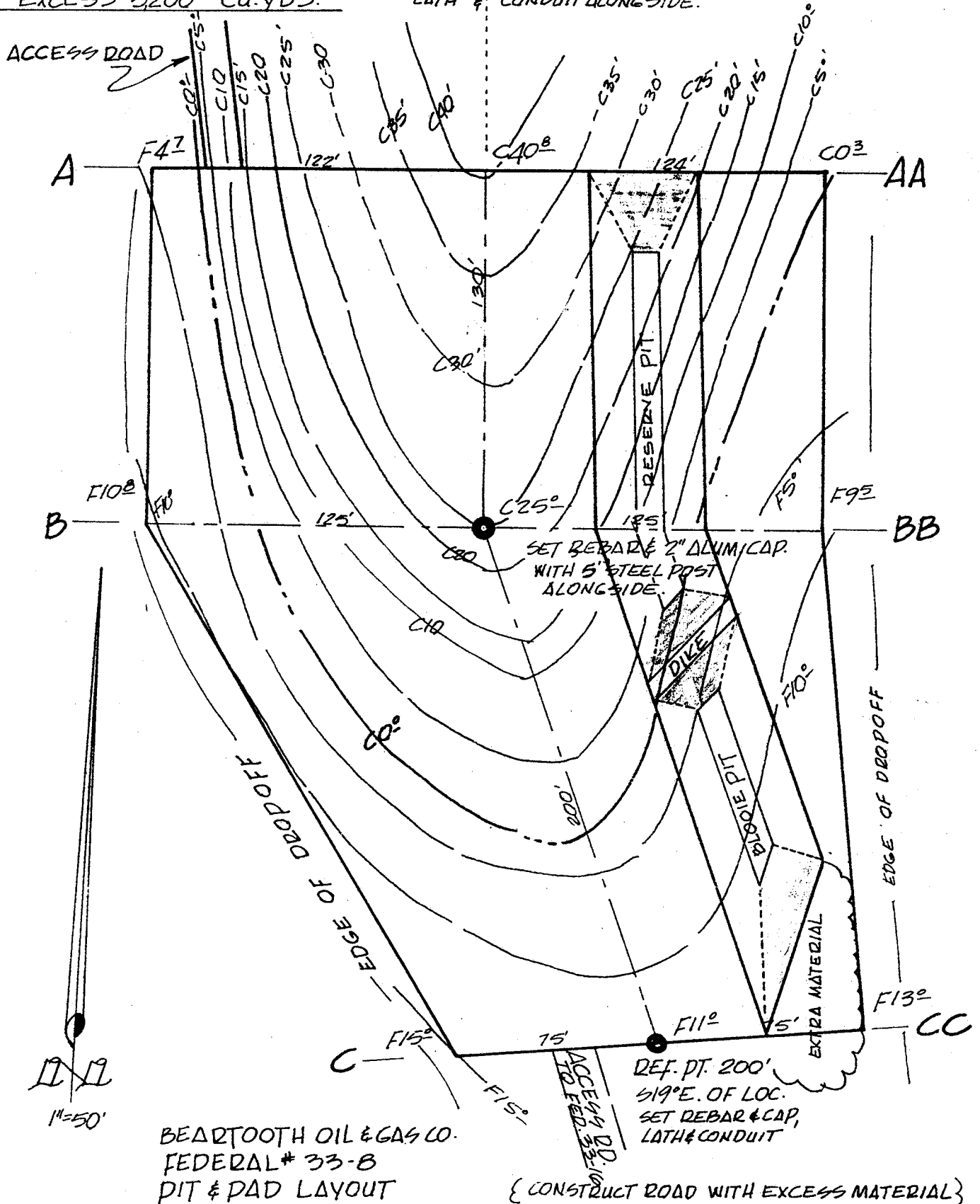
T17S-R25E

NE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 4	Hancock #10 Hancock-Govt.
SW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 4	Alpine #1 Wild Cow-Govt.
SE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 5	TXO Prod. #1 Hancock-Federal
SE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 5	TXO Prod. #1-X Hancock-Federal
NW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 5	TXO Prod. #2 Hancock-Federal
SE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 6	Palmer Oil Federal 6-14
SW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 6	Tenneco Federal 6-7

ESTIMATED EARTHWORK QUANTITIES

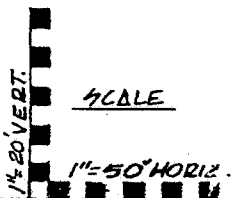
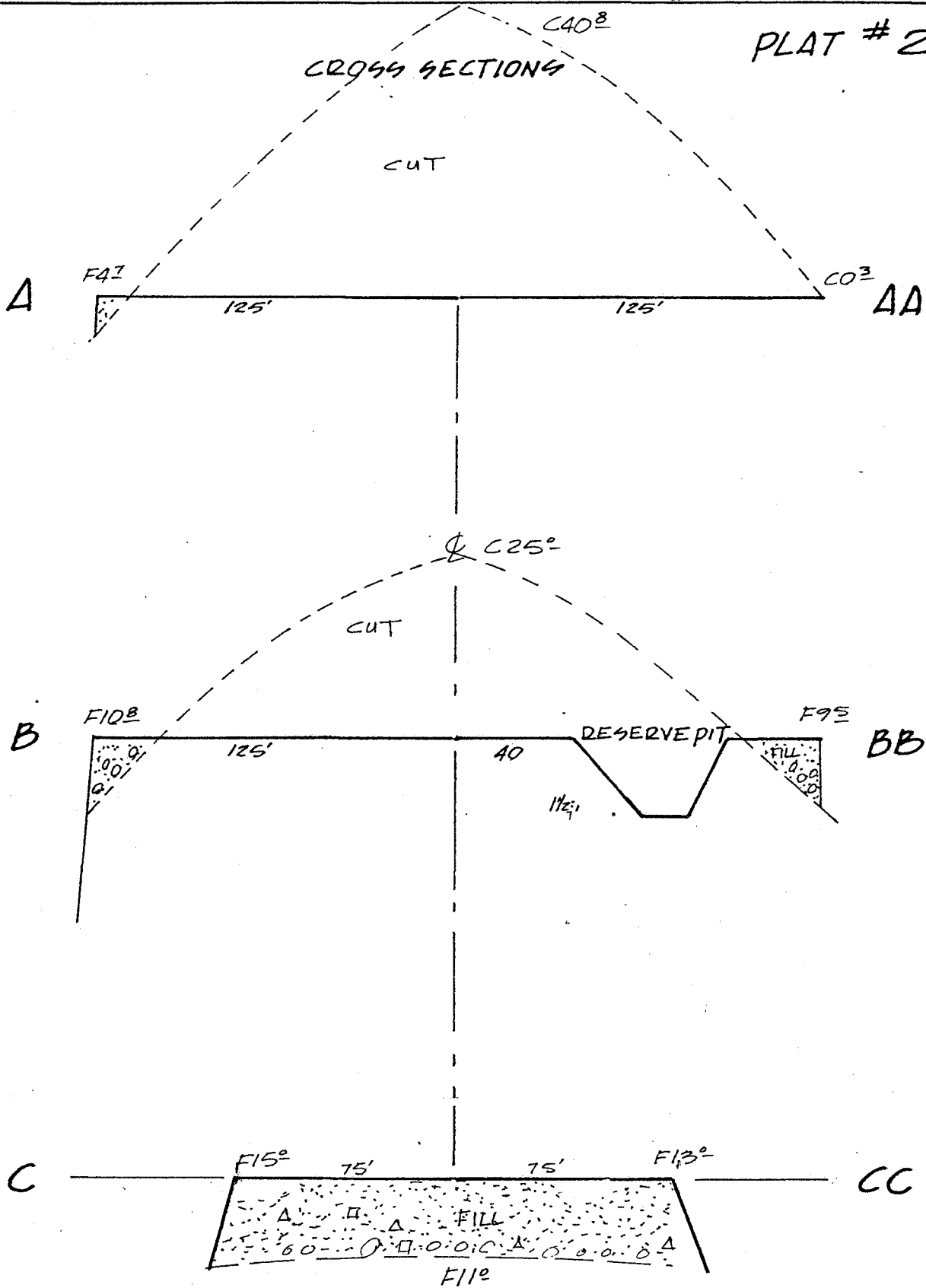
CUT 19,000 CU. YDS.  
 FILL 11,000 CU. YDS.  
 TOPSOIL 2,800 CU. YDS.  
 EXCESS 5,200 CU. YDS.

REF. PT. 200'  
 N 7° W. SET REBAR & CAP,  
 LATH & CONDUIT ALONGSIDE.



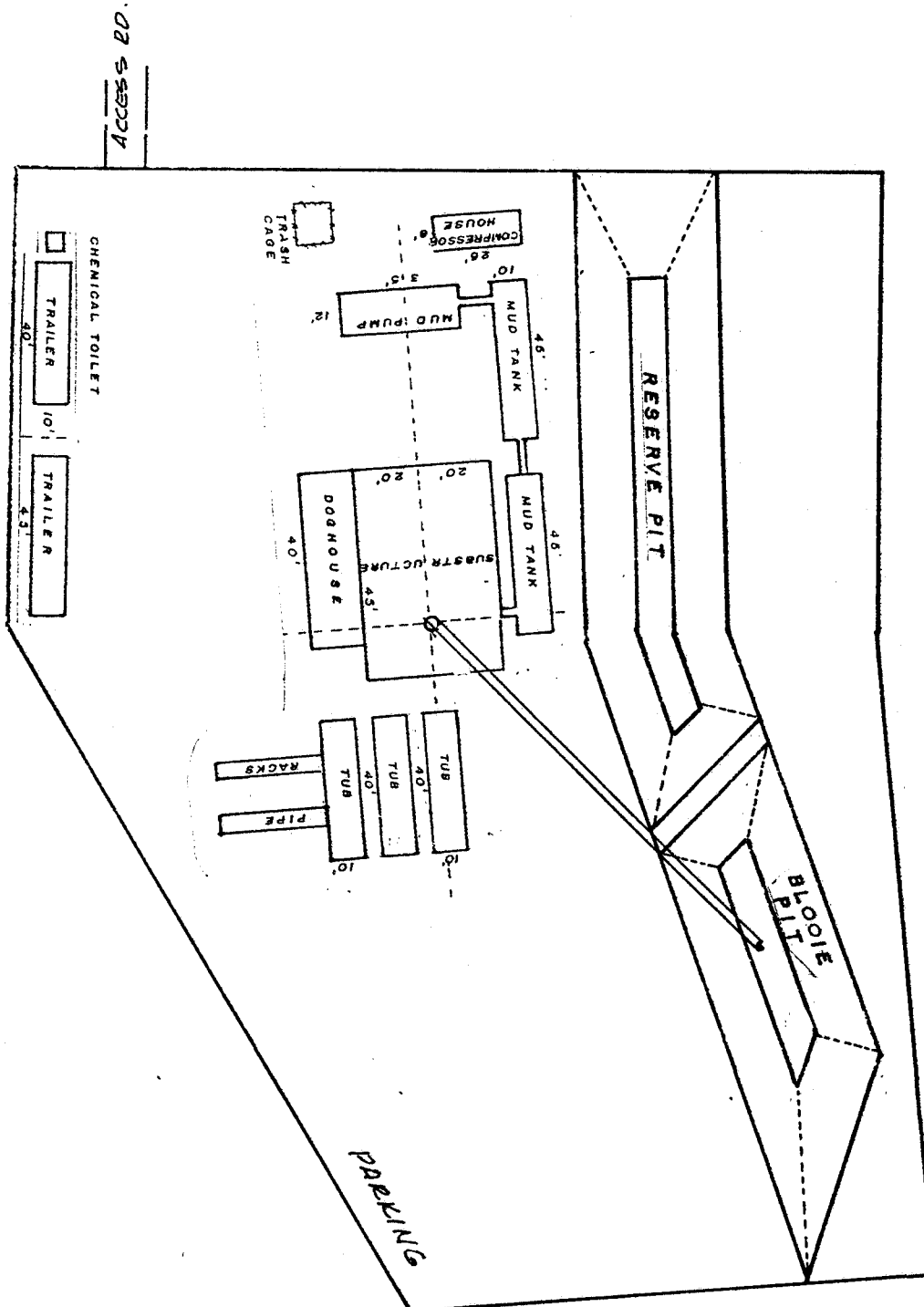
PLAT # 2A

CROSS SECTIONS



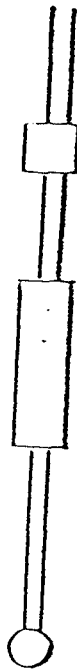
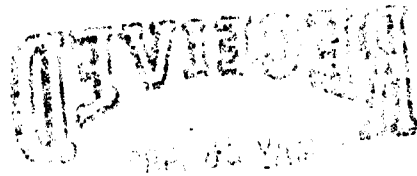
CROSS-SECTIONS  
SHOWING FED. # 33-B PIT &  
PAD LAYOUT FOR  
BEARTOOTH OIL & GAS CO.

PLAT # 3  
 RIG LAYOUT  
 FED. # 33-B



1"=50'

BEAR TOOTH OIL & GAS CO.  
 FEDERAL # 33-B

543Separator21

TO HOLDING  
DIVISION OF  
MINING & GEOLOGY

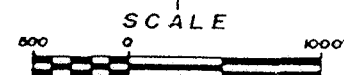
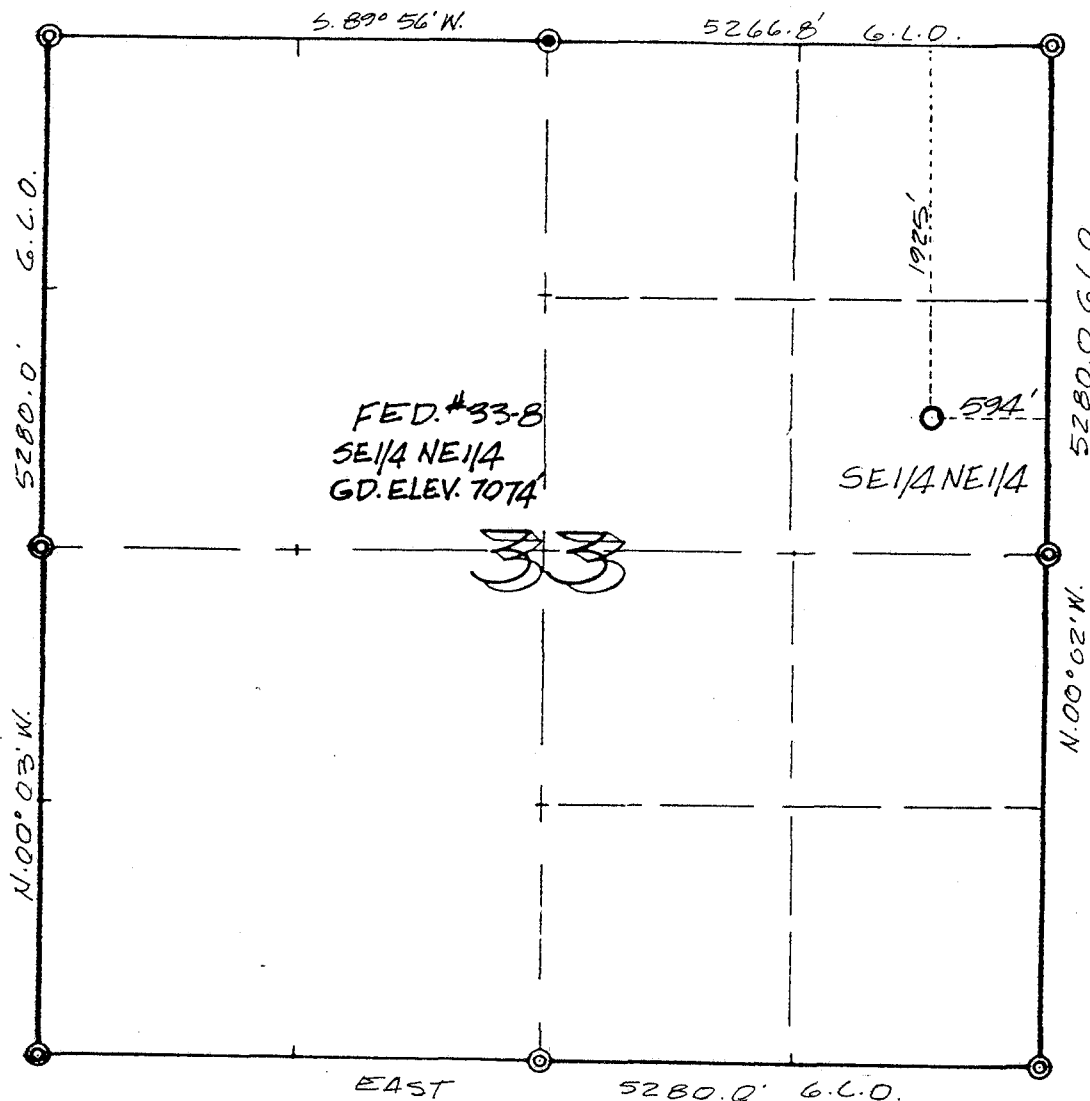


1. Wellhead will be a 6" - 900 series flanged top. Tubing head will be 10" - 900 x 6" - 3,000 psi with two 2" 3000 psi flanged valves. Tree will be 2" screwed x 3000 psi W.P.
2. Line between wellhead and separator will be approximately 100 feet in length and constructed of 2-3/8" .218 wall seamless, welded, wrapped and buried approximately 5 feet deep.
3. Line between separator and meter will be 4" or 4.028 OD seamless, welded, coated, wrapped and buried, and will be approximately 25 feet in length.
4. Meter run will be American 4" run, 500 psi static rating, 100" of water differential rating.
5. Gathering system not designed at this time.
6. Pit, if necessary, will be 10' x 10', enclosed by dikes and fenced.



SEC. 33, T. 16S., R. 25E. OF THE S.L.B.M.

PLAT #1



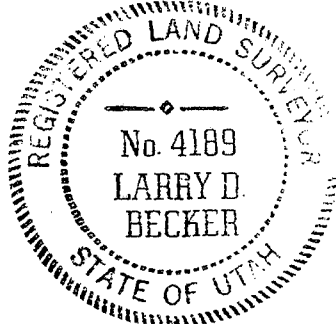
LEGEND

- ⊙ STANDARD LOCATION OF G.L.O. CORNERS.
- G.L.O. CORNERS FOUND.
- WELL LOCATION STAKED.

REFERENCE DOCUMENTS

— G.L.O. PLAT  
SAN ARROYO RIDGE, UTAH  
QUADRANGLE, USGS

THIS WELL LOCATION PLAT WAS PREPARED FOR BEARTOOTH OIL & GAS CO.  
AS REQUESTED BY KEN CURREY, TO LOCATE THE  
FEDERAL NO. 33-8, 1925' F.N.L. & 594' F.E.L.,  
IN THE SE 1/4 NE 1/4, OF SECTION 33, T. 16S., R. 25E OF THE S.L.B.M.  
GRAND COUNTY, UTAH



SURVEYOR'S CERTIFICATE

I, LARRY D. BECKER A REGISTERED LAND SURVEYOR  
IN THE STATE OF UTAH DO HEREBY CERTIFY THAT THIS  
SURVEY WAS MADE UNDER MY DIRECT SUPERVISION AND  
THAT THIS PLAT REPRESENTS SAID SURVEY.

*Larry D. Becker*  
UTAH L.S. NO. 4189

SURVEYED	4-30-82		ENERGY	1156 BOOKCLIFF AVE. NO. 4	SCALE 1" = 1000'
DRAWN	5-1-82		SURVEYS &	GRAND JUNCTION, CO. 81501	JOB NO.
CHECKED	5-2-82		ENGINEERING CORP.	805 845-7221	SHEET OF

✓

\*\* FILE NOTATIONS \*\*

DATE: June 7, 1982  
OPERATOR: Beantooth Oil & Gas Company  
WELL NO: Federal #33-8  
Location: Sec. 33 T. 16S R. 25E County: Grand

File Prepared: ☒

Entered on N.I.D.: ☐

Card Indexed: ☐

Completion Sheet: ☐

API Number 43-019-309123

CHECKED BY:

Petroleum Engineer: OK, Cause 149-2B + (unorthodox location)  
due to topographic constraints

Director: \_\_\_\_\_

Administrative Aide: As Per Order Below - ~~Topo Exception~~  
Topo Exception Required Too Close To Other well

APPROVAL LETTER:

Bond Required: ☒

Survey Plat Required: ☐

Order No. 149-2B, 3-26-80

O.K. Rule C-3 ☐

Rule C-3(c), Topographic Exception - company owns or controls acreage within a 660' radius of proposed site ☐

Lease Designation F&O

Plotted on Map ☐

Approval Letter Written ☒

Hot Line ☒

P.I. ☒

July 7, 1982

Beartooth Oil & Gas Company  
P.O. Box 2564  
Billings, Montana 59103

RE: Well No. Federal #33-8  
Sec. 33, T16S, R25E  
Grand County

Insofar as this office is concerned, approval to drill the above referred to gas well is hereby granted in accordance with the Order issued in Cause No. 149-2B, dated 03-26-80. However, this approval is conditional in that you furnish this office with a letter detailing the topographic constraints and also obtain the approval of the offset operator in Section 34.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

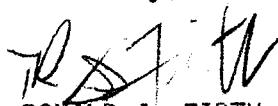
CLEON B. FEIGHT  
Office: 533-5771  
Home: 466-4455

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence and that the drilling contractor and rig number be identified.

The API number assigned to this well is 43-019-30963.

Sincerely,



RONALD J. FIRTH  
CHIEF PETROLEUM ENGINEER

RJF:SC  
cc: Minerals Management Service  
Enclosure

X

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

**SUNDRY NOTICES AND REPORTS ON WELLS**

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil ☐ gas ☒ other ☐  
 2. NAME OF OPERATOR  
 Beartooth Oil & Gas Company  
 3. ADDRESS OF OPERATOR  
 P. O. Box 2564, Billings, Montana 59103  
 4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
 AT SURFACE: 1925' FNL, 609' FEL  
 AT TOP PROD. INTERVAL:  
 AT TOTAL DEPTH: same

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:	SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF <input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE <input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES <input type="checkbox"/>	<input type="checkbox"/>
ABANDON* <input type="checkbox"/>	<input type="checkbox"/>
(other) Location Moved	

5. LEASE  
 U-51052  
 6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
 7. UNIT AGREEMENT NAME  
 8. FARM OR LEASE NAME  
 Federal  
 9. WELL NO.  
 33-8  
 10. FIELD OR WILDCAT NAME  
 San Arroyo  
 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 SE 1/4 NE 1/4 Sec. 33-16S-25E  
 12. COUNTY OR PARISH  
 Grand  
 13. STATE  
 Utah  
 14. API NO.  
 15. ELEVATIONS (SHOW DF, KDB, AND WD)  
 7074' GL, 7090' KB

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

The location for this well had been moved 15' due West (609' FEL) at the on-site inspection.

The spacing unit for this well was

**APPROVED BY THE STATE  
 OF UTAH DIVISION OF  
 OIL, GAS, AND MINING**  
 DATE: 7/16/82  
 BY: [Signature]

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED James G. Boutson TITLE Petroleum Engineer DATE 7/9/82

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 CONDITIONS OF APPROVAL, IF ANY:

**BEARTOOTH OIL & GAS COMPANY**

---

P.O. Box 2564  
Billings, Montana 59103  
(406) 259-2451

July 8, 1982

Division of Oil, Gas & Mining  
4241 State Office Building  
Salt Lake City, Utah 84114

Attention: Mr. Ron Firth

Re: Federal No. 33-8  
SE $\frac{1}{4}$ NE $\frac{1}{4}$  Section 33-16S-25E  
Federal No. 33-16  
SE $\frac{1}{4}$ SE $\frac{1}{4}$  Section 33-16S-25E  
Grand County, Utah

Dear Mr. Firth:

Beartooth Oil & Gas Company hereby requests approval of the above referenced well permit applications for both topographic and geologic reasons.

Topographically, a narrow ridge bisects the E $\frac{1}{2}$ E $\frac{1}{2}$  of Section 33, and another ridge diagonally bisects the NE $\frac{1}{4}$  of Section 33. These two ridges provide the only suitable areas for locations.

Geologically, subsurface control indicates a thick Dakota sand development in the E $\frac{1}{2}$  of Section 33 thinning drastically in the W $\frac{1}{2}$  of Section 33. Furthermore, a location in the NW $\frac{1}{4}$  would be about 200' structurally lower than the NE $\frac{1}{4}$ , and 300' lower than the SE $\frac{1}{4}$ . We feel structure is important in this area, and therefore, the locations we have submitted are the most favorable from both aspects.

The Federal No. 33-16 is the only well too close to the lease line, and the offset operator, TXO Production Corporation is sending you a letter indicating they have no objection to our location.

If you have any questions, please call.

Yours very truly,

BEARTOOTH OIL & GAS COMPANY

*James G. Routson*

James G. Routson  
Petroleum Engineer

RECEIVED  
JUL 12 1982

JGR/gb

DIVISION OF  
OIL, GAS & MINING

NOTICE OF SPUD

Company: Beartooth O & G

Caller: Grace Brown

Phone: \_\_\_\_\_

Well Number: 33-8

Location: SENE 33-16S-25E

County: Grand State: Utah

Lease Number: U-51052

Lease Expiration Date: \_\_\_\_\_

Unit Name (If Applicable): \_\_\_\_\_

Date & Time Spudded: 8-25-82 10:30 A.M.

Dry Hole Spudder/Rotary: \_\_\_\_\_

Details of Spud (Hole, Casing, Cement, etc.) 13" hole

Rotary Rig Name & Number: Cardinal Rig #4

Approximate Date Rotary Moves In: 8-30-82

FOLLOW WITH SUNDRY NOTICE

Call Received By: KR

Date: 8-27-82

DIVISION OF OIL, GAS AND MINING

SPODDING INFORMATION

NAME OF COMPANY: BEARTOOTH OIL & GAS

WELL NAME: Federal 33-8

SECTION SENE 33 TOWNSHIP 16S RANGE 25E COUNTY Grand

DRILLING CONTRACTOR Cardinal

RIG # 4

SPODDED: DATE 8-25-82

TIME 10:30 AM

How Dry Hole

DRILLING WILL COMMENCE

REPORTED BY Grace Brown

TELEPHONE # 406-259-2451

DATE 8-27-82 SIGNED SLC

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well <input type="checkbox"/> gas well <input checked="" type="checkbox"/> other	5. LEASE U-51052
2. NAME OF OPERATOR Beartooth Oil & Gas Company	6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR P. O. Box 2564, Billings, Montana 59103	7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.) AT SURFACE: 1925' FNL, 609' FEL AT TOP PROD. INTERVAL: AT TOTAL DEPTH:	8. FARM OR LEASE NAME Federal
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA	9. WELL NO. 33-8
REQUEST FOR APPROVAL TO: TEST WATER SHUT-OFF <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> SHOOT OR ACIDIZE <input type="checkbox"/> REPAIR WELL <input type="checkbox"/> PULL OR ALTER CASING <input type="checkbox"/> MULTIPLE COMPLETE <input type="checkbox"/> CHANGE ZONES <input type="checkbox"/> ABANDON* <input type="checkbox"/> (other) Status Report	10. FIELD OR WILDCAT NAME San Arroyo
SUBSEQUENT REPORT OF <input type="checkbox"/>	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA SE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 33-16S-25E
	12. COUNTY OR PARISH Grand
	13. STATE Utah
	14. API NO. 43-019-30963
	15. ELEVATIONS (SHOW DF, KDB, AND WD) 7074' GL, 7090' KB

RECEIVED  
SEP 07 1982DIVISION OF  
OIL, GAS & MINING

1007: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Well spudded with dry hole spudder at 10:30 AM 8/25/82. Drilled 13" hole to 216' KB.

Ran 5 joints (196') of 9-5/8" 32.3# H-40 casing to 212' KB. Cemented with 150 sacks Class "G", 3% CaCl<sub>2</sub>, 1/4# celloflakes - no returns to surface. Cemented down annulus through 1" tubing with 150 sacks - no returns. Re-cemented annulus with 150 sacks - no returns. Re-cemented annulus with 100 sacks and 10 yards pea gravel. Had returns to surface. Total of 550 sacks to cement surface pipe.

Waiting on Cardinal Drilling Co. Rig #4.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED Grace E. Brown TITLE Drilling Dept. DATE 8/27/82  
Grace E. Brown

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil ☐ gas ☒ other

2. NAME OF OPERATOR

Beartooth Oil & Gas Company

### 3. ADDRESS OF OPERATOR

P. O. Box 2564, Billings, MT 59103

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)

AT SURFACE: 1925' FNL, 609' FEL

AT TOP PROD. INTERVAL: same

AT TOTAL DEPTH: same

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF

## FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

PULL OR ALTER CASING

MULTIPLE COMPLETE

## CHANGE ZONES

ABANDON\*

(other) Status Report

--	--	--	--	--	--	--	--

RECEIVED (NOT RECORDED)  
SEP 1 8 1962

SEP 13 1982

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If a well is already drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Total Depth 5798'. Reached TD on 9/8/82.

Ran 153 joints 4½" casing to 5796' and cemented with 250 sacks RFC and 1000 gal. CW-100. Plug down at 2:30 AM 9/10/82.

Waiting on completion tools.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED Grace E. Brown TITLE Drilling Dept. DATE 9/10/82  
Grace E. Brown

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY: \_\_\_\_\_

\*See Instructions on Reverse Side

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING  
1588 West North Temple  
Salt Lake City, Utah 84116

\*REPORT OF WATER ENCOUNTERED DURING DRILLING\*

Well Name & Number \_\_\_\_\_ Federal No. 33-8  
Operator Beartooth Oil & Gas Company Address P. O. Box 2564, Billings, MT 59103  
Contractor Cardinal Drilling Company Address P. O. Box 1077, Billings, MT 59103  
Location SE 1/4 NE 1/4 Sec. 33 T. 16S R. 25E County Grand

Water Sands

	<u>Depth</u>		<u>Volume</u>	<u>Quality</u>
	From	To	Flow Rate or Head	Fresh or Salty
1.	1445	1460	Too small to measure	not sampled
2.				
3.				
4.				
5.				

(Continue of reverse side if necessary)

Formation Tops

Mesaverde - surface; Mancos 1620', Castlegate 1884',  
Dakota 5477', Morrison 5670'

RECEIVED  
SEP 17 1982

Remarks

Hole too damp to dust - no measurable water at surface while air drilling.

NOTE: (a) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure.

(b) If a water analysis has been made of the above reported zone, please forward a copy along with this form.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE\*

(See other in-  
structions on  
reverse side)Form approved  
Budget Bureau No. 42-R355.6

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other \_\_\_\_\_

b. TYPE OF COMPLETION:

NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other \_\_\_\_\_

2. NAME OF OPERATOR

Beartooth Oil &amp; Gas Company

3. ADDRESS OF OPERATOR

P. O. Box 2564, Billings, Montana 59103

4. LOCATION OF WELL (Report location clearly and in accordance with State requirements)

At surface 1925' FNL, 609' FEL

At top prod. interval reported below same

At total depth same

14. PERMIT NO.

43-019-30963

DATE ISSUED

7/7/82

15. DATE SPUDDED

8-25-82

16. DATE T.D. REACHED

9/8/82

17. DATE COMPL. (Ready to prod.)

10/12/82

18. ELEVATIONS (DF, REB, RT, GR, ETC.)\*

7074' GL, 7090' KB

19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD &amp; TVD

5798'

21. PLUG, BACK T.D., MD &amp; TVD

5748'

22. IF MULTIPLE COMPL., HOW MANY\*

Commingled

23. INTERVALS DRILLED BY

ROTARY TOOLS

0-TD

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*

5702-5714 - Morrison; 5562-5666' - Dakota

25. WAS DIRECTIONAL SURVEY MADE  
no

26. TYPE ELECTRIC AND OTHER LOGS RUN

CDL/GNL/GR; DIL/GR

27. WAS WELL CORED

no

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9-5/8"	32.3#	212' KB	13"	550 sacks Class "G"	
7"	20-23#	2206' KB	8-3/4"	150 sacks Class "H"	
4-1/2"	11.6#	5796' KB	6-1/4"	250 sacks RFC	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2-3/8"	5714'	-

31. PERFORATION RECORD (Interval, size and number)

5702-5714', 5640-5652, 5656-5666,  
5562-5616' - 1 shot per foot, .31" dia.

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5702-5714 - 500	gal. 15% MRA
5640-5666 - 750	gal. 15% MRA; frac w/50,000 gal.
75 quality foam, 330 bbls 5% HCl, 1,381,000 scf N <sub>2</sub> , 9,000#	100 mesh sd, 45,000# 20-40 sd.

33.\*

PRODUCTION 5562-5616 - acid w/750 gal. 15% MSR

DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)				WELL STATUS (Producing or shut-in)	
						Shut-in	
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
no test info.				Not Reported			
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

TEST WITNESSED BY

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED

James G. Routson

TITLE

Petroleum Engineer

DATE

11/9/82

\*(See Instructions and Spaces for Additional Data on Reverse Side)

# INSTRUCTIONS

**General:** This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form; see item 33.

**Item 4:** If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

**Item 18:** Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments. **Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

**Item 29: "Sacks Cement":** Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

**Item 33:** Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES			38. GEOLOGIC MARKERS			
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	MEAS. DEPTH	TRUE VERT. DEPTH
				Dakota Silt	5388'	
				Dakota Sand	5477'	
				Morrison	5670'	